
2007 REPORT TO CONSUMERS ON

WATER QUALITY

CITY OF MORGAN HILL • CONSUMER CONFIDENCE REPORT

Our Goal:

Meet or Exceed Federal and State Regulations

The City of Morgan Hill is committed to providing the community a safe, reliable supply of excellent quality drinking water that meets or exceeds Federal and State regulations. Again in 2007 we met or exceeded every water quality standard without a single violation.

This report gives information about the quality of water provided in 2007. It describes where your water comes from, what it contains and how it compares to State standards.

This report contains information regarding testing for perchlorate levels in the City's water wells. Other information can be found at www.valleywater.org.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their locations who are not billed customers of the City of Morgan Hill and therefore do not receive this report directly.

Este informe contiene informacion muy importante sobre su agua para beber. Traduzcalo, o hable con alguien que lo entienda bien.

This report contains important information about your community's water quality. If necessary, please have it translated, or speak with a friend who understands it well.

The City's Perchlorate Challenge

Perchlorate contamination of drinking water supplies in the South Valley, including water supplied by the City of Morgan Hill, has been an ongoing concern of both the City government and all local residents and businesses. Prior to the adoption of a maximum contaminant level "MCL" by the Environmental Protection Agency in October 2007, the City aggressively responded to the discovery of perchlorate in the South Valley aquifer by taking the following actions:

- Installed Perchlorate Removal systems on Nordstrom and Tennant Wells to provide residents with an adequate supply of quality drinking water; Nordstrom treatment was discontinued with the established MCL in place;
- Testing City wells for the presence of perchlorate in excess of EPA or DPH requirements;
- Turning off or treating any City well that tests above 6 parts per billion (ppb) the recently adopted MCL;
- Cooperating with the Santa Clara Valley Water District, Regional Water Quality Control Board, and State Department of Health Services on approaches to addressing perchlorate; and,
- Pursuing recovery of the City's costs associated with perchlorate contamination.

In 2004, the State of California published a final Public Health Goal (PHG) of 6 ppb for perchlorate. A PHG is a level of a contaminant in drinking water that does not pose a significant short-term or long-term health risk. Perchlorate can limit the uptake of iodide, an essential nutrient, by the thyroid gland. Research has shown that reduced levels of iodide in the thyroid can disrupt thyroid hormones that regulate metabolism and growth. For additional information on perchlorate, including test results, regulatory reports, and the status of cleanup efforts, visit the "What's New" page on the City's web site at www.morganhill.ca.gov.

Perchlorate Surcharge Imposed. On April 1, 2004, a 5% surcharge on water usage fees was applied to the water bills of every City water user to pay for perchlorate removal and the cost associated with resolving the perchlorate problem. The surcharge was increased to 10% in 2005 and to 15% in 2006 to meet the programs funding demand. Perchlorate surcharge revenues will be accounted for separately and spent only on perchlorate-related costs.

The proposed 2008/09 budget requirements for perchlorate related cost are reduced from the previous year as a result of the cost reduction associated with the decommissioning of the ion exchange treatment facility at Nordstrom Well. The cost reduction has lead to a proposed reduction of the perchlorate surcharge from 15% to 10% beginning July 1, 2008. However, it is expected that a substantial amount of City resources will be needed in 2008-09 to challenge the State Water Resources Board's December 14, 2007 amended Cleanup and Abatement Order "CAO". Upon resolution of this challenge, the City would be positioned to further reduce the perchlorate surcharge.

The need for future surcharges will be evaluated annually. Any amount determined to be in excess of the amount needed shall be credited to customers. In addition, any repayments the City receives from any source to compensate the City for perchlorate-related costs will be credited to the perchlorate account in the Water Fund and shall also be credited to customers if they are determined to be in excess of the City's perchlorate-related costs.

A Word About Chemicals and Organisms

Here is a brief description of chemicals and organisms, and how the City of Morgan Hill monitors, tests, and treats for them:

Methyl Tertiary-Butyl Ether (MTBE)

Added to gasoline either seasonally or year round in many parts of the United States to increase octane levels and reduce carbon monoxide and ozone levels in the air. In California, it has been added to gasoline since January 1996. The City of Morgan Hill has tested quarterly for MTBE in its 16 wells. No MTBE has been detected.

Lead and Copper Testing

In 1991, the EPA adopted the Lead and Copper Rule which requires all cities, including Morgan Hill, to perform lead and copper testing. The City's public water system does not have detectable levels of lead and copper; however these metals may leach into the water from home plumbing.

In June of 1997 the City completed Lead and Copper testing from inside homes under the guidance of the Department of Health Services. Results showed that the Copper levels were below the Federal Action Level of 1300 parts per billion (ppb), and the Lead levels were below the Federal Action Level of 15 parts per billion (ppb).

The City is on a three year cycle for testing of Lead and Copper determined by the primary testing performed at the first inception of the Lead and Copper Rule. The City has completed its 2006 tri-annual round of sampling and the sample results remain under Federal Action Levels for Lead and Copper. We will retest these levels again in 2009.

Nitrates

Nitrate in drinking water at levels above 45 mg/l is a health risk for infants below the age of six months. High nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin.

See "CHEMICALS", page 4

Water Sources:

Morgan Hill is located in South Santa Clara County, situated between the Coyote and Llagas underground aquifers. These aquifers are the source of Morgan Hill's water supply.

The City currently operates 16 deep water wells throughout the city. In 2007, these wells supplied 2,799 million gallons of water to 12,000 Morgan Hill homes and businesses. The water produced by these wells is disinfected with chlorine to protect against microbial contaminants.

An assessment of the drinking water sources for the City of Morgan Hill was completed in September of 2002. The ground-water source is considered to be most vulnerable to the following activities associated with contaminants detected in ground water: animal feeding operations, low density septic systems, irrigated crops, grazing and animal operations, agricultural/irrigation wells and animal feeding operations (occurrence of nitrate in groundwater).

In addition, the groundwater source is considered most vulnerable to these activities for which no associated contaminant has been detected: gas stations, dry cleaners, animal feeding operations, repair shops, sewer collections systems and pesticide/fertilizer/petroleum storage.

A copy of the complete assessment is available at the Department of Health Services, Drinking Water Field Operations Branch at 850 Marina Bay Parkway, Bldg. P, 2nd Floor, Room 458, Richmond, California, and the City of Morgan Hill Public Works Department at 100 Edes Court.

Water Quality Data

The table in this report lists all the drinking water contaminants detected during the 2007 calendar year.

To ensure that tap water is safe to drink, the California Department of Health Services (DHS) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Morgan Hill's water is treated in accordance with the Department's regulations.

The DHS Food and Drug Branch regulations establish limits for contaminants in bottled water; these limits provide the same protection for the public water supply. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

See "WATER SAMPLING", page 4

TERMS & ABBREVIATIONS USED IN THE DATA TABLES

? **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

? **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U. S. Environmental Protection Agency

? **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to PHGs or MCLGs as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

? **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

? **Regulatory Action Level (AL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow

? **n/a:** not applicable

? **ns:** no standard

? **nd:** not detectable at testing limit

? **cu:** Color Unit (a measure of color in water)

? **ppb:** parts per billion or micrograms per liter

? **ug/L:** micrograms per liter

? **ppm:** parts per million or milligrams per liter

? **mg/L:** milligrams per liter

? **pCi/l:** picocuries per liter (a measure of radiation)

? **MFL:** Million Fibers per Liter, with a fiber length greater than 10 micrometers

? **grains per gallon:** the measure of the concentration of a solution.

? **TON:** Threshold Odor Number (a measure of the odor associated with water)

? **umhos/cm:** the measure of the dissolved inorganic salt content

Contaminants that may be present in source water before we treat it.

? **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

? **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

? **Pesticides and herbicides**, which may come from a variety of sources such as agricultural and residential uses.

? **Radioactive contaminants**, which are naturally occurring.

? **Organic chemical contaminants**, including synthetic and volatile organic

Water Quality Statement

For the calendar year 2007, your tap water met all U.S. Environmental Protection Agency (USEPA) and state drinking water health standards. The City of Morgan Hill vigilantly safeguards your water supply, and once again we are proud to report that the City's system has not violated a maximum contaminant level.

| PARAMETER | DATE TESTED | UNITS | MCL | PHG (MCLG) (MRDLG) | GROUNDWATER DETECTION | | RANGE OF | TYPICAL SOURCE OF CONTAMINANT | EXCEEDED MCL? |
|---|----------------|------------|-------|--------------------|-----------------------|------|----------|--|---------------|
| | | | | | LOW | HIGH | AVG. | | |
| PRIMARY STANDARDS - MANDATED HEALTH RELATED STANDARDS | | | | | | | | | |
| CLARITY | | | | | | | | | |
| TURBIDITY | 2007 | NTU | 5 | N/A | ND | 3.6 | 0.4 | SOIL RUNOFF | NO |
| DISINFECTANTS/DISINFECTION BY-PRODUCTS RULE | | | | | | | | | |
| TOTAL TRIHALOMETHANES | QUARTERLY 2007 | ppb | 80 | N/A | ND | 4.9 | 1.4 | BY-PRODUCT OF DRINKING WATER CHLORINATION | NO |
| HALOACETIC ACIDS (HAAs) | QUARTERLY 2007 | ppb | 60 | N/A | ND | 1.1 | 0.1 | BY-PRODUCT OF DRINKING WATER DISINFECTION | NO |
| CHLORINE RESIDUAL | QUARTERLY 2007 | ppm | 4.0 | [4.0] | 0.25 | 0.34 | 0.29 | DRINKING WATER DISINFECTANT ADDED FOR TREATMENT | NO |
| INORGANIC CHEMICALS | | | | | | | | | |
| ASBESTOS | 2004 | MFL | 7 | (7) | ND | 0.32 | 0.02 | INTERNAL CORROSION OF ASBESTOS CEMENT WATER MAINS; EROSION OF NATURAL DEPOSITS | NO |
| BARIUM | 2007 | mg/l | 1 | (2) | 0.05 | 0.14 | 0.08 | DISCHARGES OF OIL DRILLING WASTES AND FROM METAL REFINERIES; EROSION OF NATURAL DEPOSITS | NO |
| FLUORIDE | 2007 | mg/l | 2 | 1 | ND | ND | ND | EROSION OF NATURAL DEPOSITS; WATER ADDITIVE THAT PROMOTES STRONG TEETH; DISCHARGE FROM FERTILIZER AND ALUMINUM FACTORIES | NO |
| NITRATE (as NO3) | 2007 | mg/L | 45 | 45 | 8 | 40 | 26 | RUNOFF AND LEACHING FROM FERTILIZER USE; LEACHING FROM SEPTIC TANKS AND SEWAGE; EROSION OF NATURAL DEPOSITS | NO |
| PERCHLORATE | MONTHLY 2007 | ppb | 6 | 6 | ND | ND | ND | MANUFACTURING USE OF LUBRICATING OILS, FABRICS, DYES, RUBBER, PAINTS, FIREWORKS, AND CERTAIN FERTILIZERS | NO |
| RADIOACTIVE CONTAMINANTS | | | | | | | | | |
| GROSS ALPHA ACTIVITY | QUARTERLY 2005 | pCi/l | 15 | N/A | ND | 0.94 | 0.29 | EROSION OF NATURAL DEPOSITS | NO |
| RADIUM 226 | QUARTERLY 2005 | pCi/l | 5 | 0.19 | ND | 0.12 | 0.02 | NATURALLY OCCURRING - FORMED BY DECAY OF PRIMORDIAL RADIONUCLIDES IN EARTH'S CRUST | |
| SECONDARY STANDARDS - AESTHETIC STANDARDS | | | | | | | | | |
| CHLORIDE | 2007 | mg/L | 500 | N/A | 28 | 69 | 47 | RUNOFF/LEACHING FROM NATURAL DEPOSITS; SEAWATER INFLUENCE | NO |
| SULFATE | 2007 | mg/L | 500 | N/A | 28 | 47 | 38.4 | RUNOFF/LEACHING FROM NATURAL DEPOSITS; INDUSTRIAL WASTES | NO |
| TOTAL DISSOLVED SOLIDS | 2007 | mg/L | 1000 | N/A | 280 | 580 | 367 | RUNOFF/LEACHING FROM NATURAL DEPOSITS | NO |
| IRON | 2007 | ug/L | 300 | N/A | ND | 140 | 15.6 | LEACHING FROM NATURAL DEPOSITS; INDUSTRIAL WASTES | NO |
| SPECIFIC CONDUCTANCE (E.C.) | 2007 | umho/cm | 1,600 | N/A | 490 | 700 | 565 | SUBSTANCES THAT FORM IONS WHEN IN WATER; SEA WATER INFLUENCES | NO |
| COLOR | 2007 | CU | 15 | N/A | ND | 12 | 3.5 | NATURALLY-OCCURRING ORGANIC MATERIALS | NO |
| ODOR-THRESHOLD | 2007 | TON | 3 | N/A | ND | ND | ND | NATURALLY-OCCURRING ORGANIC MATERIALS | NO |
| SODIUM | 2007 | ppm | NS | N/A | 18 | 36 | 27 | "SODIUM" REFERS TO THE SALT PRESENT IN THE WATER AND IS GENERALLY NATURALLY-OCCURRING | NS |
| LIST OF ADDITIONAL CONSTITUENTS ANALYZED | | | | | | | | | |
| pH | 2007 | unit | NS | | 7.2 | 7.6 | 7.4 | RUNOFF/LEACHING FROM NATURAL DEPOSITS | NS |
| HARDNESS | 2007 | ppm | NS | | 200 | 300 | 240 | RUNOFF/LEACHING FROM NATURAL DEPOSITS | NS |
| HARDNESS | 2007 | GRAINS/GAL | NS | | 12 | 18 | 14 | RUNOFF/LEACHING FROM NATURAL DEPOSITS | NS |

| PARAMETER | | | | | | | | | |
|-----------------|-------------|-------|--------------|------------|-------------------------|-----------------------------------|---|------------------------|--|
| LEAD AND COPPER | DATE TESTED | UNITS | ACTION LEVEL | PHG (MCLG) | NUMBER OF SITES SAMPLED | HOUSEHOLD RESULTS 90th PERCENTILE | TYPICAL SOURCE OF CONTAMINATION | ACTION LEVEL EXCEEDED? | |
| LEAD | Aug 2006 | ppb | 15 | 2 | 35 | 4.3 ppb | CORROSION OF HOUSEHOLD PLUMBING SYSTEMS | NO | |
| COPPER | Aug 2006 | ppm | 1.3 | 0.3 | 35 | 0.56 ppm | CORROSION OF HOUSEHOLD PLUMBING SYSTEMS | NO | |

| PARAMETER | | | | | | | | | |
|-----------------------|-------------|-------|--------------------|------------|-----------------------|------|----------|---------------------------------|------------------------------|
| UNREGULATED CHEMICALS | DATE TESTED | UNITS | NOTIFICATION LEVEL | PHG (MCLG) | GROUNDWATER DETECTION | | RANGE OF | TYPICAL SOURCE OF CONTAMINATION | NOTIFICATION LEVEL EXCEEDED? |
| | | | | | LOW | HIGH | AVG. | | |
| RADON | 2000 | pCi/L | 0 | NS | 459 | 828 | 597 | | NS |
| CHROMIUM VI | 2002 | ppb | NS | NS | ND | 4.0 | 1.8 | | NS |
| VANADIUM | 2003 | ppb | 50 | NS | ND | 6.0 | 1.0 | | NO |
| BORON | 2003 | ppb | 1,000 | NS | ND | 100 | 32 | | NO |

Additional information about the content of this report (and additional copies) can be obtained by calling the Public Works Department at (408) 776-7333.

High nitrate levels may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. Nitrate levels may rise quickly in short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider, or choose to use bottled water for mixing formula and juice for your baby. If you are pregnant, you should drink bottled water.

The City’s water supply is below the MCL for nitrates. In 2007, the City performed 245 nitrate analyses alone to ensure a safe water supply.

Unregulated Contaminants

The City proactively monitors for unregulated contaminants. This helps the EPA and the California Department of Health Services determine where certain contaminants occur, and whether the contaminants need to be regulated.

Perchlorate

On October 18, 2007, the California Department of Public Health (DPH) established the “Maximum Contaminant Level” (MCL) for perchlorate at 6 parts-per-billion “ppb”. DPH determined that at this level, there was no significant health risk to individuals drinking 2 liters of water a day for their lifetime including at-risk populations such as pregnant women and infants. Based on the adoption of the MCL the City of Morgan Hill amended its perchlorate treatment rule to be consistent with the DPH requirements and protocol. However, the City continues to monthly monitor perchlorate in certain wells where the perchlorate level is above the DPH Detection Limit Range for perchlorate testing. This is in excess of what the DPH requires.

Radon

The City tested its source waters for radon on a quarterly basis in 2005. Radon is a radioactive gas found throughout the U.S. that you can’t see, taste, or smell. It can move up through ground and into a home through cracks and holes in the foundation, and can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities.

Compared to Radon entering the home through the soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause an increased risk of stomach cancer.

If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren’t too costly. For additional information, call your State radon program, or call EPA’s Radon Hotline (800-SOS-RADON).

Radioactive Contamination

These contaminants can be naturally occurring or may be the result of oil and gas production and mining activities.

Unless otherwise noted, the data presented in this table is from testing done over the period January 1-December 31, 2007. The State allows the City to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Thus, some of the data – though representative of the water quality – is more than a year old.

Water Sampling and Testing:

The annual water sampling required by the State Department of Health Services consists of Bacteria (520 samples), Nitrate (245 samples), Turbidity (52 samples), Trihalomethenes (64 samples), and (HAA5) Halocetic Acids (64 samples), for a total of 945 samples from the 40 separate sample stations and source facilities located throughout the City’s water distribution system.

Other Information:

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA’s Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at-risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water System Improvements

The City’s water system consists of 16 production wells, 115 miles of water main, 9 pumping stations, and 12 reservoirs. This complex, interrelated system requires 24-hour monitoring and an extensive program of ongoing maintenance. Additionally, a 5-year program of capital improvements must be constantly updated to plan and fund new capacity and the replacement of aging infrastructure. The past year was used to plan and design several project that will be completed next fiscal year. These water system planned improvements include:

- Diana Park Well Project: Replace an old existing well to meet current specifications and reclaim lost production
- Llagas Pressure Zone Realign: Add a pressure zone to the water distribution system on Llagas Road to accommodate the pressure reducing station that will lower water pressure in the surrounding neighborhoods.
- Nob Hill Reservoir Project: Re-coat tank and improve structure integrity to better tolerate earth quakes.
- Glen Ayre Booster: Construct building around booster station for security and upgrade electrical.